

IN THE CLAIMS:

1. (Currently Amended) A film-forming method of supplying gaseous molecules, each composed of plural atoms, onto a substrate, said film-forming method comprising:

providing a silicon substrate;

providing a mixture of an inert gas component containing only at least one of a Kr gas and a Xe gas and a gas component containing said gaseous molecules, the gaseous molecules containing the constituting elements of a silicon compound to be film-formed onto the substrate;

generating a plasma of said mixture, to excite molecules of said inert gas, and thus, to excite said gaseous molecules through the collision between said excited molecules of said inert gas and said gaseous molecules to a quasi-stable level energy required to dissociate said gaseous molecules into their respective elements; and

supplying said elements of said gaseous molecules onto said substrate.

2. (Currently Amended) A film-forming method as defined in claim 1, wherein the gaseous molecules are include oxygen molecules.

3. (Currently Amended) A film-forming method as defined in claim 1, wherein the gaseous molecules ~~are~~ include nitrogen molecules.

4. (Currently Amended) A film-forming method as defined in claim 1, wherein the inert gaseous gas has a molecule density not less than that of the gaseous molecules in the mixed gas.

5. Canceled

6. (Currently Amended) A film-forming method as defined in claim 5 1, wherein at least a part of the silicon elements constituting the silicon compound are dissociated into silicon elements.

7. (Currently Amended) A film-forming method as defined in claim 5 1, wherein the silicon compound is a silicon oxide.

8. (Currently Amended) A film-forming method as defined in claim 7, wherein the inert gas is krypton gas and the gaseous molecules ~~are~~ include oxygen molecules to be dissociated into oxygen elements to oxidize the substrate.

9. (Currently Amended) A film-forming method as defined in claim 7, wherein the inert gas is xenon gas and the gaseous molecules ~~are~~ include oxygen molecules to be dissociated into oxygen elements to oxidize the substrate.

10. (Previously Amended) A film-forming method of supplying gaseous molecules, each composed of plural atoms, onto a substrate, said film-forming method comprising:

providing a substrate;

providing a mixture of an inert gas component containing at least one of a Kr gas and a Xe gas and a gas component containing said gaseous molecules;

generating a plasma of said mixture, to excite molecules of said inert gas, and thus, to excite said gaseous molecules through the collision between said excited molecules of said inert gas and said gaseous molecules to a quasi-stable level energy required to dissociate said gaseous molecules into their respective elements; and

supplying said elements of said gaseous molecules onto said substrate,

said substrate being a silicon substrate;

Serial No. 09/646,988

said gaseous molecules containing Si elements and nitrogen molecules to be dissociated into their respective elements;

said inert gas component further containing He gas.

11. (Currently Amended) A film-forming method as defined in claim 51, wherein the silicon compound is a silicon oxynitride.